

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

Listing of Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) An unsolicited message rejecting communications processor connected ~~to~~between message transfer agents MTA_0 with an Internet address of IP_0, a from-address A_0, a declared domain of D_0, and ~~actual~~a real domain of DD_0, and MTA_1 with an Internet address of IP_1, a domain D_1, and a to-address A_1 comprising:
 - a) monitoring means for monitoring the communications between MTA_0 and MTA_1;
 - b) determining means for determining if the communications contains a message that is an-unsolicited-message; and
 - c) intercepting means for intercepting a .\r\n end-of-message indicator reply from MTA_0, forcing MTA_0 to QUIT its connection with MTA_1the unsolicited message rejecting communications processor by sending an error reply to MTA_0 if the message is determined to be unsolicited~~[[.]]~~;whereby MTA_1 controls the interaction wherein the unsolicited message rejecting communications processor does not intercept communications between MTA_0 and MTA_1 before a .\r\n end-of-message indicator reply from MTA_0 is received by the unsolicited message rejecting communications processor.
2. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes ~~a~~an allow_address

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

database and wherein the determining means determines if athe message is not unsolicited by checking if the IP_0 is in the allow_address database.

3. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes a prevent_address database and wherein the determining means determines if athe message is unsolicited by checking if IP_0 is in the prevent_address database.

4. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes access to ~~aan~~ open relay database and wherein the determining means determines if athe message is unsolicited by checking if IP_0 is in the open relay database.

5. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes access to a DNS (domain name server) database and wherein the determining means determines if athe message is unsolicited by checking if IP_0 has a domain name entry DD_0 in the DNS database.

6. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes a bad_from database and wherein the determining means determines if athe message is unsolicited by checking if the from-address A_0 is in the bad_from database.

7. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes a suspect_domain database and wherein the determining means determines if athe message is unsolicited by checking if the ~~actual~~real domain DD_0 matches the domain of the from-address A_0 and the domain of the from-address A_0 is in the suspect_domain database.

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

8. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, wherein the determining means determines if ~~a~~the message is unsolicited by checking if the from-address A_0 matches the to-address {A_1}.
9. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes a no_filter database and wherein the determining means determines if the message is to be blocked if it is determined to be unsolicited.
10. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the declared domain D_0 of MTA_0 is the same as the domain D_1 of MTA_1.
11. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the declared domain D_0 of MTA_0 does not match the real domain ~~DD_1~~DD_0 and the declared domain D_0 is in the suspect_domain database.
12. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes a bad_word database and wherein the determining means determines if ~~a~~the message is unsolicited by checking if the subject line of the message contains any words in the bad_word database.
13. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes a bad_fingerprint

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

database and wherein the determining means determines if the hash "fingerprint" of a portion of the body of the message is in the bad_fingerprint database.

14. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes a rejected_connection database which logs the time, from-address A_0, to-address A_1, and the reason for the rejection if ~~at the~~ message is ~~rejected if the message is determined to be~~ unsolicited.

15. (currently amended) The unsolicited message ~~blocking~~rejecting communications processor in Claim 1, further includes ~~an~~ allowed_connection database which logs the time and to-address A_1 if the message is ~~determined~~determined not to be unsolicited.

16. (currently amended) A method for
a receiving networked computer system with an Internet connection, a
~~mail transport~~message transfer agent MTA_1, an Internet address IP_1, ~~a~~
to-address A_1, and an operating system capable of executing the
method

to reject unsolicited messages from

a transmitting networked computer system with an Internet connection and
a message transfer agent MTA_0, an Internet address IP_0, ~~a~~ from-
address A_0, ~~a~~ declared domain D_0, and ~~actual~~ real domain DD_0

comprising the steps of:

- a) waiting for a new SMTP connection request;
- b) relaying and monitoring the replies from MTA_0 to MTA_1;
- c) relaying replies from MTA_1 to MTA_0;
- d) intercepting the ~~.\r\n~~ end-of-message indicator reply from MTA_0 to
MTA_1;

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

- e) determining if the message is unsolicited by analyzing the monitored replies;
- f) releasing the intercepted .\r\n end-of-message reply if the message is determined not to be unsolicited; and
- g) sending aan error reply to MTA_0 to force MTA_0 and MTA_1 to close down their connection;

whereby MTA_1 controls the interaction between MTA_0 and MTA_1 until a .\r\n end-of-message indicator reply is received from MTA_0.

17. (currently amended) A method for

a receiving networked computer system with an Internet connection, a DNS server, and an open relay database, a mail-transportmessage transfer agent MTA_1, an IP address IP_1, a domain name D_1, a recipient-to-address[[,]] A_1, an allow_address database, a prevent_address database, a suspect_domain database, a bad_from database, a no_filter database, a yes_filter database, a bad_word database, a bad_fingerprint, a rejected_connection database, an allowed_connection database, and an operating system capable of executing the method

to reject unsolicited messages from

a transmitting networked computer system with an Internet connection, a message transfer agent MTA_0, an IP address of IP_0, a declared domain name D_0, a real domain name DD_0, and a sender-addressfrom-address of A_0

comprising the steps of:

- a) waiting for a SMTP connection request on the receiving networked computer system's Internet connection;
- b) sending a 220 reply to MTA_0 to acknowledge the requested connectionSMTP connection request;

- c) extracting the IP address IP_0 from the ~~connection request~~SMTP connection request;
- d) requesting ~~a~~the domain name DD_0 for IP_0 from the DNS server;
- e) testing if the domain name DD_0 is "no name";
- f) testing if IP_0 is in ~~a~~the open relay database;
- g) testing if IP_0 is in the allow_address database;
- h) testing if IP_0 is in the prevent_address database,
- i) requesting a connection with MTA_1;
- j) waiting for a 220 reply from MTA_1 to acknowledge the requested connection;
- k) waiting for a reply from either MTA_0 or MTA_1;
- l) jumping to step o) if the reply is not from MTA_1;
- m) relaying the reply from MTA_1 to MTA_0;
- n) jumping to step k) to wait for a new reply;
- o) jumping to step u) if the reply from MTA_0 is not a **HELO**;
- p) extracting the declared domain D_0 from the reply;
- q) testing if the declared domain D_0 ~~of MTA_0~~ matches the domain D_1 of MTA_1;
- r) testing if the declared domain D_0 does not match the real domain DD_0 ~~of MTA_0~~ AND the declared domain D_0 is in the suspect_domain database;
- s) relaying the HELO reply from MTA_0 to MTA_1;
- t) jumping to step k) to wait for a new reply;
- u) jumping to step aa) if reply from MTA_0 is not a **MAIL**;
- v) extracting the from-address A_0;
- w) testing if A_0 is in the bad_from database;
- x) testing if DD_0 does not match the domain of A_0 and the domain of A_0 is in the suspect_domain database;
- y) relaying MAIL reply to MTA_1;
- z) jumping to step k) to wait for a new reply;

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

aa)jumping to step ii) if the reply from MTA_0 is not a **RCPT**;
bb)extracting the to-address A_1;
cc) testing if A_1 is in the no_filter database;
dd)testing if A_0 matches A_1;
ee)testing if A_0 is in the no_filter database;
ff) testing if A_0 is in the yes_filter database;
gg)relaying RCPT reply to MTA_1;
hh)jumping to step k) to wait for a new reply;
ii) jumping to step yy) if the reply from MTA_0 is not **DATA**;
jj) relaying DATA to MTA_1;
kk)waiting for a 354 reply from MTA_1;
ll) relaying a 343 reply to MTA_0;
mm) wait for the body of the message;
nn)relaying the body of the message to MTA_1;
oo)waiting for a .\r\n end-of-message indicator;
pp)testing if any word in the subject line of the message is in the bad_word
database;
qq)testing if the hash "fingerprint" of a portion of the message is in the
bad_fingerprint database;
rr) jumping to step vv) if NOT(t_allow OR t_no_filter OR OR NOT t_yes_filter
OR NOT (t_prevent OR t_open OR t_DD-) OR t_bad_from OR
t_suspect_domain OR t_echo_domain OR t_forged_domain OR
t_bad_word OR t_bad_fingerpring)) ;
ss)logging the time and the to-address A_1 in the allowed_connection
database;
tt) relaying the .\r\n end-of-message indicator reply to MTA_1 to continue the
conversation;
uu)jumping to step k) to wait for a new reply;
vv)logging the time, the from-address A_0, the to-address A_1, and the
reason for rejecting the connection in the rejected_connection database;

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

ww) sending a 554 reply to MTA_0 to terminate the conversation;
xx) jumping to step k) to wait for a new reply;
yy) jumping to step ggg) if the reply from MTA_0 is not **RSET, SEND, SCML, SAML, VRFY, NOOP, EXPN, HELP, or TURN**;
zz) relaying the reply to MTA_1;
aaa) jumping to step j) to wait for a new reply;
bbb) jumping to step ddd) if the reply from MTA_0 is not a **QUIT**;
ccc) relaying the QUIT reply to MTA_1;
ddd) waiting for a 221 reply from MTA_1
eee) relaying a 221 reply from MTA_1 to MTA_0;
fff) jumping to step a) to wait for a new connection;
ggg) sending a 500 reply to MTA_0 to signal a syntax error; and
hhh) jumping to step a) to wait for a new connection.

18. (new) A method comprising:

- a) relaying and monitoring SMTP messages exchanged between a transmitting message transfer agent (MTA_0) and a receiving message transfer agent (MTA_1);
- b) intercepting a .\r\n end-of-message indicator reply from MTA_0;
- c) determining if an e-mail message is unsolicited by analyzing the monitored SMTP messages; and
- d) releasing the .\r\n end-of-message indicator reply if the message is determined not to be unsolicited, whereas, sending an error reply to MTA_0 to force MTA_0 to close its communications connection if the message is determined to be unsolicited.

19. (new) An apparatus comprising:

a communications port; and
means for

Applicants: White et al.
Serial No.: 10/761,894
Filing Date: January 20, 2004
Docket No.: EGT-006-1C

- a) relaying and monitoring SMTP messages exchanged between a transmitting message transfer agent (MTA_0) and a receiving message transfer agent (MTA_1);
- b) intercepting a .\r\n end-of-message indicator reply from MTA_0;
- c) determining if an e-mail message is unsolicited by analyzing the monitored SMTP messages; and
- d) releasing the .\r\n end-of-message indicator reply if the message is determined not to be unsolicited, whereas, sending an error reply to MTA_0 to force MTA_0 to close its communications connection if the message is determined to be unsolicited.